INDONESIAN ABSTRACTS

Abstracts on current scientific Indonesian literature.

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3 SOCIAL SCIENCES
33 ECONOMICS

332.572.2 (910)
BUDIARDJO, C.

Devaluation in Indonesia: its usefulness and limitations in *Ekonomi dan Keuangan Indonesia* 12 (7/9) : 272-318, 1959.

The writer first discusses the conditions under which postwar devaluations have taken place - inflationary, by contrast with the deflationary conditions prevailing at times of interwar devaluations. A special dilemma faces export economics today: devaluation has inflationary effects, a reason not to proceed, but if domestic price levels get seriously out of line with world conditions, exports will suffer and devaluation may appear inevitable. Devaluation as a problem for underdeveloped countries is discussed in terms of general postwar deterioration in their trading position and in terms of the need for structural economic change, an objective which is hampered by the restrictive measures which would have to accompany devaluation to ensure its success, the so-called 'partial deflation' of Prof. Viner. After a brief account of the nature of inflation in Indonesia, with special reference to its heavy pressure upon imports, the writer then proceeds, in an attempt to determine the effect of devaluation upon the balance of trade, to a theoretical discussion of devaluation in terms of home and foreign supply and demand elasticities with special references to Indonesia's exports and imports. This method is adopted with reservations considering that Indonesia's major projects are more affected by income elasticities in the buying countries than by price elasticities. The main conclusion drawn is that, in view of Indonesia's leading position as a world supplier of its main exports, devaluation can only help the balance of trade at a time of industrial expansion in the buying countries, a time when in fact the case for devaluation, as a corrective to trade imbalance, is least likely to present itself. The final part of the article is devoted to an account of the various devaluations, partial and complete, and the various foreign trade policies carried out in Indonesia since 1949, each being critically appraised in terms of the preceding general and theoretical discussion.

332.7
OENTOENG SOEBROTO

Determinants of rural demand for credit in *Ekonomi dan Keuangan Indonesia* 12 (5/6) : 213 - 226, 1959.

A summary of research undertaken in Australia where conditions admittedly differ from Indonesia. Special objective factors operate in the rural sector - assests are shortlived, production risks are great, relatively long production cycle - and therefore the determinants of demand for rural credit differ from those operating in industry. After distinguishing between credit demands of new entrants and established

farmers, the writer discusses the effect of income levels. High incomes breed optimism and marginal efficiency of capital expectations are strong, so the demand for credit is likely to increase. But high incomes mean greater savings, reducing the need for credit: the savings effect might operate inversely if more available internal funds encourage the farmer to make bigger investments requiring additional external funds. Since conflicting tendencies are at work, the limited survey undertaken led to inconclusive results. The overall impression was that farmers are inclined to be cautious borrowers until sufficiently high incomes encourage expansion. The writer considers that the determinants classified may become operative in Indonesia but only after smallholders agriculture has risen beyond the subsistence level.

332.11 (910)
PAMOENGKAS, S.

Kedudukan Bank Sentral dalam sistem ekonomi terpimpin **(The place of the Central Bank in a system of guided economy)** in *Keuangan Negara* 3 (7) : 3 - 7, 1960.

The article describes briefly the growth of co-ordination between central banks and governments as the latter have intervened more and more in economic and financial developments of the State. It critically considers the present relationship between Indonesia's central bank — Bank Indonesia — and the cabinet, in view of the accepted State policy of building a system of guided economy and rejecting economic liberalism. It concludes that the present structure of State financial and economic councils in which the Governor of the Bank Indonesia sits as member, side by side with Cabinet Ministers, is inappropriate. The Bank should be made clearly subordinate to the Minister of Finance on whom devolves responsibility for financial and monetary policy, and the Monetary Board, on which the Governor sits as member should cease to be a policy-making body and should become an advisory body for the Finance Minister. The Bank should have delimited but clearly defined freedom of action as regards implementation of the Finance Minister's instructions.

338.531 : 332.571.2
SADLI, Moh.

Pengendalian harga dalam masa inflasi **(Price control in times of inflation)** in *Ekonomi* 1 (1) : 11-33, 1959.

A current-day problem in Indonesia is discussed in general theoretical terms with incidental reference to conditions in this country. There is a brief account of the workings of the MV = PT equation; it is pointed out that, although P tends to follow changes in M, this is modified by changes in V and T. In an under-developed country, changes in T may occur because the money economy is expanding. There follows a discussion, in micro-economic terms, of price control in competitive markets and in monopolistic markets, and the writer

points out that Indonesia's experiences with control of petrol prices (a monopolistic market) proves the correctness of J. K. Galbraith's contention that price control in a monopolistic market is much simpler than controling prices in a market with many sellers. After pointing to the disequilibriums that price control may lead to, either because it acts as a disincentive or because it distorts resource allocation, the writer concludes that though price control is desirable to hold back the full effects of inflation upon prices, it must be accompanied by more basic action in the fiscal and/or monetary fields to deal with the causes of the inflation.

338 : 63 (910)
SOERIAATMADJA, R. S.

Beberapa tjatatan tentang paham ekonomi didusun-dusun pedalaman (**Some notes on economic concepts in the countryside**) in *Ekonomi* 1 (2/3) : 209 - 227, 1959.

This study describes the effect of cultural influences upon economic activities of peasants in the Indonesian countryside. After referring briefly to the great variety of cultural patterns in the country, the writer directs attention to W. Java where village life has been strongly subject to modern influences. Magico-animism is still strong despite the spread of Islam. Local practices to determine planting time, harvesting, etc. are described. Ceremony accompanies many economic activities in the belief that technical action is not enough. Behaviour is still strongly patterned by social opinion and custom though as regards the purely technical side of activities, the peasants show a strong tendency to accept modern innovations and modify excessive spending on ceremonies. Since, in many parts of the country economic activities are still at a very primitive level, the writer suggests that action to achieve a uniform level of economic prosperity throughout the country must take these cultural/anthropological factors into account.

338.6 : 330.19
SUNDARU, S.

An institutional approach to economic development in *Ekonomi dan Keuangan Indonesia* 12 (5/6) : 204 - 212, 1959.

The writer considers the role of development corporations in building infrastructure in underdeveloped countries, taking the American TVA as a model. In Indonesia, the Jajasan Pembukaan Tanah Transmigrasi (JAPETA) is a public corporation set up to clear and prepare lands in S. Sumatra for new settlers from over-populated Java. JAPETA was originally inspired by TVA although it has developed differently, having no self-liquidating operations. The scale of operations is far too limited and unless changes are made, the resettlement programme will merely mean shifting Java's poverty to other islands. The writer believes that development corporations, enabling vertical co-ordination at local level between various agencies involved in a

project, but existing as legal entities separated from central of regional government (permitted by public corporate status to levy tolls and fees), have an important role to play in infrastructure development.

34 LAW

347.1 : 342.1
MAINAKE, A. J.

Merenungkan hubungan antara individu dan negara berhubung dengan kedudukan (posisi) hukum privaat pada waktu sekarang **(Thoughts about the relation between the individual and the state in connection with the position of contemporary Private Law)** in *Padjadjaran* 1 (3) : 46 - 98, 1959.

The article attempts to explain the relation between the individual and the state; state action which cause individual damage; jurisdiction of the Courts; and the position of Private Law in connection with Public Law in Indonesia. The explanations are supported by doctrines as well as Court decisions in the Netherlands and in Indonesia, and are connected with the guided democracy principle and the 1945 Constitution of the Republic of Indonesia. The author states that socialization of law will further proceed and that Government's intervention in social matters will increase. This is for the sake of general interest, and is a consequence of the realisation of the guided democracy principle. The field of Private Law will become narrower, but as to what position Private Law will be reduced, the author cannot foretell as yet.

39 CUSTOMS AND TRADITION. SOCIAL ANTHROPOLOGY

392.5 (921)

Perkawinan ditanah Gajo **(Marriage in Gajo-land)** edited by: Bagian Bahasa Djawatan Kebudajaan, Departemen P.P. dan K., Djakarta 1960, 36 pp.

A careful description is given of the extensive wedding ceremonials of the Gajo-tribe of the Northern part of Sumatra. Besides the usual patrilocal marriage with bride-price, the matrilocal variant occuring in special cases, is mentioned too. Among some of the most striking features of the Gajo wedding practices are: "mantang", the taboo that forces a betrothed couple to behave as if ashamed of each other and disliking each other; "meratap", the weeping of the bride and her family and friends because of the imminent separation; "berdidong", the "battle" of poems ("pantun") between groups of boys and girls; "bertepok", dancing of the groom accompanied by clapping of hands (bertepuk) of his bride's girl friends, who, on this occasion, are allowed to treat him as their servant; "bertunah", "covered with mud", the custom prescribing that on occasion of the first planting season after marriage, the newly-wed should work one

day on a rice-field of some member of the wife's clan. On the end of this day, the girl friends of the wife are allowed once more to make fun of her husband, teasing him and throwing him with mud, etc. In case of the marriage-form in which no bride-price is paid, the husband is incorporated in his wife's clan. Divorce in the Gajo-tribe is infrequent.

39 (910)
KOENTJARANINGRAT, R. M.

Ilmu Anthropologi dan Masaalah Akulturasi **(Anthropology and Acculturation)** in *Medan Ilmu Pengetahuan* 1 (1) : 87 - 102, 1959.

In 1951 an article *Indonesian Sociology,* was published by T. S. G. Moelia in *Cultureel Nieuws.* The author explained the use of sociology as a means for the understanding of social problems in Modern Indonesia. In the course of his explaination, however, he made a statement which disagrees with the real facts, namely that sociology has a better understanding of the social problems which are the result of acculturation. This is not true, and by presenting a survey of descriptive as well as theoretical studies on the processes and consequencies of acculturation, performed by anthropologists from around 1910 up to the present time, Koentjaraningrat demonstrates the amount of attention and understanding of anthropology to the problems of acculturation in human society.

5 NATURAL SCIENCES

55 GEOLOGY

552.1 (921)
KATILI, JOHN A.

Geological Investigations in the Lassi Granite mass (Central Sumatra), Thesis, Bandung Institute of Technology, May 1960.

The Lassi mass, south east of the Lake Singkarak is a complex rock assemblage of Permo-Carboniferous volcanics and sediments and Triassic deposits, intruded by plutons and partly overlain by Tertiary sediments. During Permo-Carboniferous time this area was occupied by an elongated sea basin, in which thick sequence of bathyal and neritic sediments were deposited. Pelitic sediments dominated but contemporaneous volcanic products were also deposited. These Late Paleozoic Early Mesozoic volcanic deposits (the Silungkang formation) have been studied petrographically and the results of this study, combined with the field relations, has led to the conclusion that they are autochtonous deposits. The petrography of the granitic rocks has also been studied and the mode of emplacement of the granites discussed, based on both microscopical and field data. The genesis of the Lassi granites can be explained best by a combination of magmatic and metasomatic Processes. The age of the different granitic rocks in the investigated area and in other parts of Sumatra are studied in

relation to the tectonics, indicating a distinct zonal arrangement of the granites in South Sumatra according to age. However this zonal structure can not be used conversely as a base to establish the age of the granites or the age of the folding in the investigated area or in other parts of Sumatra. The unraveling of the geological structure in this area is of great importance, because many geologists have assumed the existence of a nappe structure similar to the presumed nappe at Djambi. The problem of this so called Umbilin nappe hypothesis has been treated in this paper and the present author comes to the conclusion that no nappe structure exists in the area south east of Lake Singkarak.

58 BOTANY

581.9 + 551.588
BORSSUM-WAALKES, J. VAN

Botanical observations on the Krakatau islands in 1951 and 1952 in *Annales Bogoriensis* 4 (1) : 5 - 64, 1960. 15 plates.

In October 1951, twenty years after the last explorations of Docters van Leeuwen, the author made a study of the flora and vegetation on the Krakatau Islands. Pulau Rakata (Krakatau proper) was found to be covered for the greater part with forest consisting mainly of Neonauclea calycina. Unburnt wood remains of the vegetation before the great eruption of 1883 were found on the west coast of the island. The pioneer vegetation on Anak Krakatau was analysed. In November 1952, the damage caused by a severe eruption of Anak Krakatau was studied. For a consistent botanical nomenclature two fern species have required new combinations, viz Ctenopteris moultonii (Copel.) Adelb. ex Borss. and Grammites cervicorna (V.A.V.R.) Adelb. ex Borss.

581 (595)
KOSTERMANS, A. J. G. H.

New and critical Malaysian Plants VI in *Reinwardtia* 5 (3) : 341 - 369, 1960.

1. Alseodaphne Nees and Nothaphoebe Bl. are reinstated as distinct genera.
2. Newly described are Alseodaphne corneri Kosterm., A. montana Kosterm.; Nothaphoebe pachyphylla Kosterm. and N. pahangensis Kosterm.
3. Iteadaphne philippinensis Elmer is relegated to Alseodaphne.
4. Newly described in Beilschmiedia are: B. filicifolia Kosterm., B. glauciphylla Kosterm., B. pilosa Kosterm.
5. Endiandra eusideroxylocarpa Kosterm., a new species from Borneo.
6. Dehaasia hirsuta Kosterm., a new species from Borneo.
7. A new Millettia (M. vasta Kosterm.) is described from Borneo with notes on its distributional area.

8. Lansium domesticum, var. aqueum Jack (a common market fruit in Sumatra, Java and S. Borneo) is raised to specific rank.
9. Teijsmanniodendron pendulum Kosterm., a new species from Central- East Borneo.

582.912 (595)
SLEUMER, H.

Flora Malesianae Precursores XXIII. The genus Rhododendron in Malaysia in *Reinwardtia* 5 (2) : 45-231, 1960.

A revision of the Malaysian species of the genus Rhododendron L. Distinguished are 261 species and 55 varieties and forms of which 96 species (R. oreites, invasiorum, incommodum, eymae, revolutum, hooglandii, superbum, nanophyton, schizostigma, ciliilobum, cinchoniflorum, delicatulum, bryophilum, psilanthum, magnificum, opulentum, cyatheicolum, rhodochroum, gilliardii, haematophtalmum, phaeops, truncicolum, phaeopeplum, rappardii, rubellum, vinicolor, fallacinum, obscurum, hybridogenum, cernuum, pudorinum, arenicolum, multinervium, natalicum, cruttwellii, archboldianum, pleianthum, oliganthum, carrii, tuba, pubitubum, trichanthum, amabile, cinerascens, goodenoughii, pneumonanthum, womersleyi, caespitosum, parvulum, oxycoccoides, disterigmoides, myrsinites, subulosum, psammogenes, cornu-bovis, planecostatum, pseudobunifolium, stonori, vitis-idaea, rhodostomum, acroline, alternans, leptomorphum, helodes, nitens, alticolum, pyrhophorum, luteosquamatum, scarlatinum, simulans, brassii, subuliferum, atropurpureum, subcrenulatum, rubrobracteatum, pachycarpon, pseudomurudense, beccarii, perplexum, rhodopus, cuspidellum, commutatum, leptobrachion, bloembergenii, rosendahlii, comparabile, christianae, brevipes, aurigeranum, scabridibracteatum, convexum, gregarium, rativenium, atjehense) are described as new (some are obviously hybrids) and 29 new varieties are presented. 10 species have been reduced to the rank of a variety or form, and 67 species, varieties, or forms have been reduced to synonymy. In the keys to several subsections or series the extra-Malaysian species are included.

59 ZOOLOGY

594 (913)
BENTHAM JUTTING, W. S. S. VAN

Non-marine Mollusca of the North Moluccan islands Halmahera, Ternate, Batjan and Obi in *Treubia* 25 (1) : 25-87, 1959.

An enumeration of the species of this area. Newly described are Pseudocyclotus wegneri, Curvella acutiuscula, Planispira scheepmakeri forma kobelti nom. nov., Pl. quadrifasciata forma dodingaensis nom. nov. and Papuina pileolus forma parabolica nom. nov. The striking features in the faunal composition of the North Moluccas are:

1. the absence of Pila, Viviparus, Lymnaea, the Corbiculidae and the fresh-water musssels (Naiads);
2. the absence of Amphidromus, Hemiplecta, Cyclophorus, Alycaeus, Bradybaena similaris and Achatina fulica. Of Chloritis there occurs only one species;
3. the luxurious development of the genus Planispira, both in number of species and of specimens;
4. the presence of the endemic genus Pyrochilus;
5. the presence of the genus Miratesta.

597.6 (922) (923)
CHURCH, G.

Size variation in Bufo melanostictus from Java and Bali (Amphibia) in *Treubia* 25 (1) : 113 - 126, 1959.

1. The results of analysis of snout-vent measurements on 3,908 Bufo melanostictus Schneider collected in 16 localities on Java and Bali show that considerable variation exists in size between local populations of this species in these areas.
2. The range in size of females exceeds that of males, but the average sizes for males and females were found to be almost the same in all but three of the sixteen populations.
3. The average size for the whole collection was 71 mm. The largest male measured 101 mm., the largest female measured 110 mm. The smallest male and the smallest female measured 35 mm.
4. Using the average snout-vent measurement of 71 mm as a standard, 10 populations showed statistically significant differences between the means.
5. Animals from populations which exceeded the standard of 71 mm were found to be more active than those from populations which were smaller than the standard.
6. Data on the occurrence of vocal slits in 886 males were collected from 13 populations. 38% were found to have one vocal slit located on the right side; 46% had one vocal slit on the left; 11% had both right and left vocal slits; and 5% had none.
7. A discussion of the possible factors causing size variation, and the possible route of dispersal of this species in Java and Bali is given.

594.38 (910)
KOES SOESILASTI SOENARTO

Suatu kejong daratan jang hidup di Indonesia: Achatina Fulica Bowdich **(A land snail living in Indonesia: Achatina Fulica Bowdich)** in *Medan Ilmu Pengetahuan* 1 (4) : 437-456, 1960.

This animal is a large land snail, belonging to the land Pulmonata, living in all parts of Indonesia. The study was carried out on living specimens and on those fixed in 70% alcohol or 4% formol. This kind of snail can be distinguished easily from the other snails by its large shell and typical brown-yellowish colour of its shell. It comes

out at night, eats plant leaves and causes considerable damage. In this present paper the author discusses the modes of life and the anatomy, especially of the reproductive organs. The snail is hermaphrodite. There is reciprocal con-current copulation, during which the extended penis of each animal enters the pronounced vaginal aperture of the other. The round white-yellowish eggs are laid in great masses. Some parts of the male and female genital organs were sectioned serially after paraffin embedding and stained with haematoxylin eosin or Mallory's stain modified by McGill.

597.5 (267)
KUTHALINGAM, M. D. K.

The life history and feeding habits of a tripod fish (Triacanthus brevirostris Temm. & Schleg) of the Indian Sea in *Treubia* 25 (1) : 159 -174, 1959. figs. 9.

Data are given on the development and a description of the larvae after certain periods. The larvae were fed on plankton and necton; diatoms were declined. The food contains mainly copepods; although the adult fish feeds on teleostean fishes, also adult copepods were found in their stomachs.

597.6 : 636.082.4
LIEM KIM HING (K. F.)

The breeding habits and development of Rana chalconota (Schleg.) (Amphibia) in *Treubia* 25 (1) : 89-111, 1959. figs. 35.

1. There is no breeding season, the eggs are laid throughout the year.
2. Contrary to the contention of Sarasin, van Kampen and Delsman, the eggs are always laid in this surface layer attached to floating objects.
3. No correlation was found between size of egg and number of eggs in a batch.
4. The ten basic stages as recognized by Lieberkind have a more practical value than data of age and length of tadpoles.
5. In blastula and gastrula the nuclei of the cells are visible as pigment accumulation.
6. According to the author one of the characteristics of stage II: "neural tube closed" should be better eliminated.
7. As to the adhesive organ Rana cholconata belongs to the "Esculenta type".
8. The granular patches appear in the following sequence: one at each side of the belly, base of the tail and one behind the mouth; they remain until at least one week after metamorphosis.
9. Teeth formula can only be used for tadpoles with fully developed hind legs. For R. chalconata: 4 rows in the upper lip, 3 inner ones broadly interrupted. Three in the lower lip.
10. In the upper lip the rows of labial teeth appear from the upper border inwards, and disappear during metamorphosis in the same succession.

11. In the lower lip the rows of labial teeth appear from the mouth towards the lower border of the lip but disappear in the opposite succession.
12. The papillae of the outer row on the lower lip become long and prominent in the older tadpoles.

597.6 + 598.1
MERTENS, R.

Amphibien und Reptilien von Karimondjawa, Bawean und den Kangean Inseln **(Amphibia and reptiles of Karimondjawa, Bawean and the Kangean islands)** in *Treubia* 25 (1) : 1-15, 1959.

The material, mainly brought together by Hoogerwerf was insufficiently labelled, the author presents here additions to his first paper on the fauna of these islands, after Hoogerwerf had amendated his labelling. In Karimondjawa and Bawean no amphibia or reptiles are found, which do not occur in Java. The common Mabuya multifasciata is represented in a small island of the Karimondjawa group by an endemic race. In Kangean are found Mabuya rudis and Dendrelaphis caudolinata, which occur in Borneo, not in Java or Bali. The not common Oligodon purpurascens from Java has an endemic race in Kangean. A tendency to slight melanismus in the fauna of the islands is observed. The material, however, is insufficient and the state of conservation of the snakes is too poor, to warrant description of these forms.

595.76 (923)
OCHS, G.

Ueber die Gyriniden der Insel Flores (Coleoptera) **(On the Gyrinids of the island of Flores)** in *Treubia* 25 (1) : 17-20, 1959.

One new subspecies (Gyrinus sericeolimbatus wegneri); additional material of Macrogyrus sumbawae, Dineutus regimbartii sumbaensis, Orestochilus marginepennis archipelagensis and O. florensis.

59 S.384
SERENE, R.

Note sur les espèces de Trapezia du group Digitalis et sur leurs relations avec les espèces de Tetralia **(Note on the species of Trapezia of the Digitalis group and on their relations with the species of Tetralia)** in *Treubia* 25 (1) : 127-158, 1959. plates 2.

1. The species of Trapezia of the group speciosa represent certain intermediate characters between the genera Trapezia and Tetralia. This is confirmed by studies of the species digitalis and speciosa.
2. In the genus Tetralia the following alterations are presented: Tetralia glaberrima (Herbst 1799); T. glaberrima laevissima Stimpson 1858, nov. comb., T. glaberrima nigrifrons Dana 1852, nov. comb., T. heterodactyla Heller 1861; T. heterodactyla fusca Serene et Pham Than Dat 1957, nov. comb.; T. heterodactyla cyanea Serene et Pham Than Dat 1957, nov. comb.

595.76 (91)
STRANEO, S. L.

Deux Pterostichides nouveaux de l'Archipel Malais (Coleoptera, Carabidae) **(Two new Pterostichids of the Malay Archipelago)** in *Treubia* 25 (1) : 21-24, 1959.

Lestiscus purpurascens and L. wegneri, species nov. from Flores.

6 APPLIED SCIENCES. TECHNOLOGY

62 ENGINEERING AND TECHNOLOGY

621.311 (082.2)

Hasil-hasil Seminar Tenaga Listrik **(Results of the Seminar on Electrical Energy)** in *Insinjur Indonesia* 8 (5) : 8-10, 1960.

a. Electrical energy is essential as a means for industrialization
Electrical energy business should be Government business.
b. As soon as possible an exploration should be made of conventional fuels (coal, petroleum and water).
In addition to this also sources for nuclear energy.
c. The aim should be:
in 1965 : 1000.000 kw
in 1970 : 2000.000 kw
Short term: steam driven generators.
Long term: hydroelectric
diesel generator only in emergency cases.
In this connection the production of coal must be multiplied.
d. A condition for success of these electric powerstation is an electric equipment plant.
e. A board of coordination should be erected for serving the highest efficiency.
f. A laboratory for high voltage experiments should be erected.
g. The existing regulations regarding electrical installations and the safety protection have to be reconsidered and renewed.

622.2 : 330.19 (910)
MCDIVITT, J.

Mineral resources in the economic development of Indonesia in *Ekonomi dan Keuangan Indonesia* 12 (7/9) : 319-337, 1959.

A study of how Indonesia's mineral resources, now a source of export earnings, can become a key stimulus to industrialisation. After presenting a broad classification of known resources according to the state of exploitation, the writer describes present exploitation (oil, tin, coal and limestone) and planned, government-sponsored development (cement, nitrogen fertiliser, iron-and-steel, tin smelting) for which prospects are very promising. Other minerals known to be

available in commercial quantities (nickel, bauxite for aluminium production) could, he suggests, be exploited by private capital. There follows a brief survey of problems, in the first place, the lack of capital due in part to the unwelcome position of foreign capital. An internationally — sponsored insurance fund to cover abnormal risks of investors in mineral exploitation in the developing countries is suggested. Other problems are technical personnel and mining laws. Sharp price fluctuations bring hardships and the writer envisages a trend towards regional co-operation between the developing countries to solve marketing problems.

627.53 (911)
SCHOPHUYS, W. N.

Rentjana Polderplan Kalimantan **(Polderplan at Kalimantan)** in *Insinjur Indonesia* 8 (3) : 16 - 28, 1960.

The polderplan is the first step in the exploitation of millions of acres marsh-land for rice cultivation. As exploitation of new land must be accompanied by transmigration of people from other areas, it is essential that the soil of the new land must be fertile (minimum 1 ton rice per acre). This condition is fulfilled by the Kalimantan marshland. Not only in Kalimantan but also in Sumatra's Eastcoast conditions are similar. The polderplan has as its aim: improvement and new opening of rice fields as big as 840.000 acres during 15 years (1960 - 1974), divided into :
1. in 5 years 340.000 acres of rice field.
2. in 10 years 500.000 acres of rice field.
In this way rice production will be multiplied, axceeding the internal consumption and also millions of people can get a living from it. The implementation of the plan is very hard, because of the total amount of finance for the budgeting of this plan. Attached to the paper are: a list of the urgency program, a list of the required budget, and a list of equipment needed.

628.17 (923)
SOEKARDJO SASTRODIHARDJO

Pengairan dikepulauan Nusatenggara (dahulu Sunda Ketjil) **(Irrigation in the Lesser Sunda-Islands (named now: Nusatenggara)** in *Madjalah Pertanian* 11 (2) : 42-74, 1960.

Figures on arable land, divided into irrigated rice-fields, non-irrigated land; properly irrigated land and local measures for irrigation. A survey of the irrigation of the Subak area in Bali with particulars and extensive information on the methods of unkeep, expenses, rice planting, the interrelation with religion and law enforcement. Some information is given on the same system in Lombok and of the system in Sumbawa, together with a comparison with irrigation in Java.

631.4.004.4
MASMAN BEKTI

Pengawetan tanah **(Soil conservation)** in *Tehnik Pertanian* 9 (1-2): 59-66, 1960.

After examples in other continents of deterioration of land, the author gives data on Indonesia. Since 1870 when coffee was planted on hill sides, large scale erosion and deterioration of land started. The deserted coffee plantations were occupied by farmers and the erosion went on quicker. The critical region of the Brantas River in East Java is discussed, where after World War II the forested area went down from 24 to 18 percent, and the estate-land under trees went down 63 percent because of unlawful occupation. Money spent for flood-victims could be better used to prevent these floods. A plea for proper land-use.

633.71.001.5
TAMBOENAN, W. G. P. T., ACHMAD ABDULLAH and AUZAY

Penjelidikan memperoleh varietas tembakau Virginia jang tjotjok buat daerah Bodjonegoro **(Research in Virginia tobacco varieties for the Bodjonegoro region)** in *Tehnik Pertanian* 8 (9-12): 349-496, 1959.

In the Bodjonegoro (East Java) region, being the most important Virginia tobacco growing region in Indonesia, each year the growers suffer losses worth millions of rupiahs through crop failures. The acreage suffering failures amounts to approximately 2000 hectares annually. Therefore tobacco growing in this region becomes a very hazardous and speculative enterprise, while the yield per hectare is among the lowest of all Virginia tobacco regions of Indonesia. The factors causing the above are heavy attacks by Phytophthora and drowning through rains or repeated inundations. The Phytophthora disease is discussed, the biology and living conditions of the mold, symptoms of attack, conditions favoring a heavy attack and methods of control and prevention. The danger of a Phytophthora attack can be eliminated by rigid measures in plant hygiene and discipline, but at present such measures cannot be applied. Drowning is further the damage inflicted. Against the danger of drowning not much can be done, because it is strongly correlated with the unfavourable physical character of the soil: heavy, poorly permeable, with a strong water-holding capacity (heavy margalite). Moreover all farmlands in this region are on flat and low plains, where proper drainage measures are very difficult. During the last years heavy and frequent rains, falling in the dry season, had a very damaging effect. Moreover these off season rains favoured explosive and epidemic outbreaks of Phytophthora disease. The most effective and quickest way to solve these problems is "looking" for a variety resistant to Phytophthora and to

drowning, without impairing its quality. All varieties so far grown in this region are very susceptable to these damaging factors. The methods of breeding followed during the last 7 years are: variety selection, pure-line method and hybridization. Pure-line method and hybridization have not yet yielded the desired results, though favourable prospects are possible for a few forthcoming years. Crosses between Harrison's Special and Oxford 1, 2, 3 and 4 are being investigated. With variety selection during the last 4 years the variety S 551 Dixie Bright 101 has come to the fore. This variety shows a high resistance to Phytophthora and drowning. It has a high yield, while there are no difficulties in leaf curing. Extensive research by the two largest cigarette factories in Indonesia (smoke tests and chemical analyses are also carried out) as to the quality of the leaves as to colour, cut, taste, aroma, body, elasticity, venation, thickness, structure and texture, and the presence of gums prove that this variety meets the manufacture requirements of a good tobacco. Thus S 511 Dixie Bright 101 has been proved to be satisfactory to the three groups interested in tobacco growing in Bodjonegoro, viz. the growers wanting security from crop failures, the curers demanding easily curable tobacco of good quality, and the manufacturers of cigarettes who want high grade tobacco. Therefore it is recommended that the varieties usually grown in Bodjonegoro, viz. Harrison's Special, (Oxford) 402 and Virginia Special should be replaced by S 551 Dixie Bright 101. As the Indonesian name for this variety the authors suggest: Si Tjantik, meaning "The Pretty One".

66 CHEMICAL INDUSTRY

665.353.6 (910)
ATMOSUDIGDO

Kopra **(Copra)** in *Ekonomi* 1 (2/3) : 177 — 186, 1959.

An instructive account of developments in the marketing of copra, Indonesia's fourth most important export, the main product in most of Sulawesi. The prewar Copra Corporation (liquidated 1956) ensured standardisation but did not benefit peasant producers, either in earnings or in supplies of daily necessities, a vital problem in regions where little but copra is produced. Corporation profits went into a price stabilisation fund but the peasants gained little. The writer rejects the argument that peasant earnings should deliberately be held down to curb inflation. In 1956, attention was directed towards building co-operatives of producers, but rebellion in copra regions halted these developments. As security improved, a Government Regulation gave a state trading corporation monopoly in copra marketing and supplies of goods but the situation is still unsatisfactory. Producers receive far too little from sales/export proceeds; a stabilisation fund deprives producers of earnings; supplies of necessities are still irregular. The 1958 regulation should be repealed though the writer admits that monetary considerations (the need to combat inflation) may rule this out at present. The lasting solution lies in co-operatives.

7.026 (049.4) Charles Olmeijer
RESINK, G. J.

Tulisan dan tanda tangan Charles Olmeijer **(The handwriting and signature of Charles Olmeijer)** in *Medan Ilmu Pengetahuan* 1 (4) : 358 — 362, 1960.

The photograph appended to this article on the handwriting and signature of Charles Olmeijer is a facsimile of a petition written and signed by Olmeijer, dated "Berouw 1 December 1890". The petition, recently found in the National Archives, is addressed to the Governor-General of the Netherlands Indies, and requests a permit to enter into contracts with the Sultan of Sambaliung and/or his subjects for the purpose of prospecting for gold and other minerals. Charles Olmeijer was a prototype of Kaspar Almayer in Joseph Conrad's *Almayer's Folly*, whose "thoughts were often busy with gold; gold he had failed to secure ..... gold he meant to secure yet .....". This document proves that in this respect the ambitions of the fictional Almayer were quite the same as those of the factual Olmeijer.

721 : 551.583 (910)
SALEH A. SASTRODIPURO

Pengaruh iklim terhadap perentjanaan rumah di Indonesia **(Climate influence on house design in Indonesia)** in *Masalah Bangunan* 3 (3) : 21-34, 1959.

This paper shows the prominent part that climatical factors play in the house design and living comfort in Indonesia. The main factors in the planning problem in Indonesia are:

1. people, their varied needs, customs, local ways of living.
2. climate, the intense sunheat and excessive rainfall.
3. building materials, the choice of suitable materials, with regard to insect attack, fungi development and general decay.

The development of light weight materials will be of great use in improving traditional building methods and constructions. Advantage has to be taken of the favourable aspects of the tropical climate, e.g. soft breezes and the scenery of evers green hills and valleys.